

REMARKS

Review and reconsideration of the non-final Office Action dated August 06, 2008 is respectfully requested in view of the above amendments and the following remarks.

Applicant has amended the specification to overcome the Examiner's objection. Applicant is submitting herewith a substitute specification. Entry of the substitute specification is respectfully requested.

Claims 1-10 have been canceled. Claims 11-19 have been added. Support for new Claims 11-19 can be found on Claims 1-10 as originally filed, Figures 3-7, and pages 4-5 and 7-9 of the specification as originally filed.

Support for the addition of the term "raising" on Claim 11 can be found on page 1, second paragraph, of the specification as originally filed.

Support for Claim 17 and amendment to page 9 of the specification can be found on Claim 8 and Figure 7 as originally filed.

No new matter has been added to the specification or the claims.

For the reasons set forth below, Applicant believes that the application is now in condition for allowance.

Office Action

Turning now to the Office Action, the paragraphing of the Examiner is adopted.

Paragraph 1 (Objections- Specification)

The Examiner objected to the Specification because of formalities.

The position of the Examiner can be found on page 2 of the Office Action.

In response, Applicants have amended the specification to overcome the objection and to correct numerous translation errors. No new matter has been added by the present amendment.

Applicants are submitting a Markup version of the specification showing all deletions and additions and a clean copy of the new specification.

Entry of the attached specification is respectfully requested.

Accordingly, withdrawal of the objection is respectfully requested.

Paragraph 2 Objections – Drawing

The Examiner objected to the drawings because the drawings fail to teach the gluing point attached by a surface to avoid accumulation of glue on the wall of the gluing point.

The position of the Examiner can be found on pages 2-3 of the Office Action.

In response, Applicant respectfully points out to the Examiner that the proposed specification and claims amendments will overcome the objection to the drawings.

Accordingly, withdrawal of the objection is respectfully requested.

Paragraphs 4-17 (Claims Rejection – Formalities)

The Examiner rejects Claims 5-10 under 35 U.S.C., 112, first paragraph, as failing to comply with enablement requirements.

The Examiner rejects Claims 1-10 under 35 U.S.C., 112, second paragraph, as being indefinite.

The position of the Examiner can be found on pages 2-5 of the Office Action.

In response, Applicant has carefully reviewed the specification and claims to overcome the Examiner's rejection.

Accordingly, withdrawal of the rejection is respectfully requested.

Paragraphs 18-21 (Rejection – Prior Art)

The Examiner rejects:

Claim 1 under 35 U.S.C. 102(b) as being anticipated by admitted prior art (hereafter called APA).

Claims 2-4 under 35 U.S.C. 103(a) as being obvious over APA in view of McDowell (US 3,269,643).

The position of the Examiner can be found on pages 6-7 of the Office Action. Applicant respectfully traverses.

For a reference to be anticipated, it must teach all the elements of the claim.

The present set of claims contains one independent claim, namely, Claim 11.

The following remarks are addressed to independent Claim 11, because if this claim is not anticipated or obvious, it follows that none of the other rejected dependent claims are anticipated or obvious.

Compared with independent Claim 11 the APA fails to teach: 1) a plate having a plurality of parallel rows raising from the plate and forming a series of crests and valleys; 2) the crests are disposed longitudinally in the direction of rotation of the gluing roller applicator; 3) the glue only impregnates the crests; 4) wherein the gluing points are raised from the surface of the ruler guide; and 5) the gluing points are interchangeable.

Applicant reviewed the APA and note that page 3 of the specification, first full paragraph, contains an indication that the plate of the prior art includes small cells (compartment, chamber) in which the glue is deposited.

These small cells allow the deposit of glue and when the speed of rotation of the roller applicator is increased, produce the spattering of the glue.

The present invention overcomes the problem presented by the prior art by providing a plate having a plurality of parallel rows raising from the plate and forming a series of crests (peak) and valleys; thus, the glue only impregnates the crests.

Crest is defined as the top or extreme point of something.

Valley is defined as a long, narrow region of low land between high areas.

Furthermore, Applicant notes that the gluing points of the APA are connected to the ruler guides by a support equipped with a lower shaft which is threaded around the said power strip and an upper shaft which is threaded around the glue point. This configuration presents an inconvenience because glue accumulates on the support, lower shaft and upper shaft walls and the un-transferred glue comes off during the turning of the roller, producing unwanted spattering. Furthermore, the glue dries around the gluing points, gradually increasing the transfer surface, producing an unnecessary expense and increasing the humidity in the bag.

The design of the present invention overcomes the deficiencies of the prior art by raising the point of the plate (crest) that contacts the glue, thus only the crest contacts the glue and prevents accumulation of glue on the plate. In addition, the design of the present invention is simple and does not require a series of shafts to place the gluing point on the ruler guide; thus, by raising the gluing point with respect to the surface of the ruler guide, only the top surface of the gluing point contacts the glue and prevents accumulation of glue.

Applicant is pleased to see that the Examiner recognized that APA is silent to a crest having crest with valley.

The Examiner cited the McDowell reference to show this teaching.

First, Applicant notes that McDowell is silent regarding gluing points raised from the surface of the ruler guide. The cited reference does not mention this matter at all.

Applicant notes that the McDowell reference teaches that the embossed pattern on the impression roller has a rubber cover with a waffle design. The design defines a plurality of protuberances (different from peak) defining lands (different from valley) with an undercut defining groove.

On Column 3, lines 1-3, there is an indication that:

"The only critical consideration with respect to the lands and grooves utilized is that the area of lands be no greater than 5 percent of a given unit area"

The above statement clearly indicates that the grooves are bigger than the lands; thus pockets are formed that can accumulate glue.

How the design of McDowell differentiates from the small cells design of the APA?

In addition, the above statement clearly indicates there are no crests (peaks) on the design of McDowell.

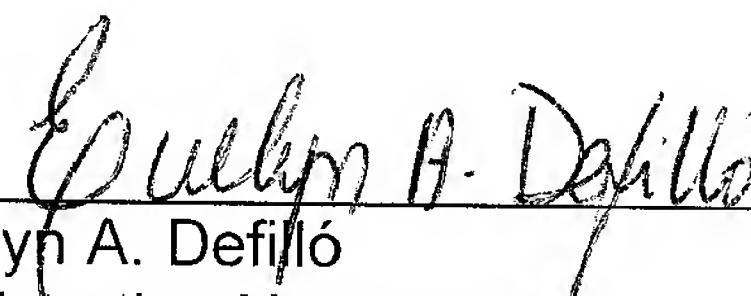
Furthermore, the McDowell reference fails to teach that the crest is the only point of the plate that touches the glue.

In view of the above, neither of the APA and/ or the McDowell references, taken alone or in combination, teach all the elements of the present invention as presently claimed because both references fail to teach parallel rows raising from the plate and forming a series of crests and valleys; the glue only impregnates the crests; and the gluing points are raised from the surface of the ruler guide.

Accordingly, withdrawal of the rejection is respectfully requested.

Favorable consideration and early issuance of the Notice of Allowance are respectfully requested. Should further issues remain prior to allowance, the Examiner is respectfully requested to contact the undersigned at the indicated telephone number.

Respectfully submitted,



Evelyn A. Defillo

Registration No. 45,630

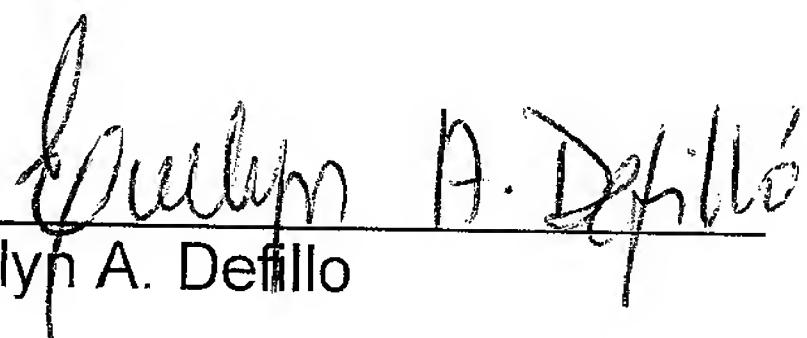
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Date: October 27, 2008

CERTIFICATE OF FILING

I hereby certify that a copy of the foregoing AMENDMENT A for U.S. Application No. 10/579,031 filed May 11, 2006, was electronically filed addressed: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 27, 2008.



Evelyn A. Defillo

**MARKED UP VERSION OF
SPECIFICATION INDICATING
ADDITIONS AND DELETIONS**

SYSTEM FOR GLUING BAGS COMPRISING MULTIPLE SHEETS

DESCRIPTION

5 OBJECTIVE OF THE INVENTION

The present invention refers to a system which permits an improvement in the ~~glueing~~ gluing of paper bags and sacks composed comprised of several layers or sheets, and 10 especially, for ~~glueing~~ gluing the bottoms of the sacks and bags.

15 The objective of the invention is a glue applicator plate, used for the ~~glueing~~ gluing of the bottoms of the bags, and specifically, a raised or embossed ~~of~~ said gluer which avoids prevents the glue from coming off at high speeds.

20 Also, the objective of the invention is the configuration of the ~~glueing~~ gluing points utilized for the application ~~of the~~ of the ~~glueing~~ gluing points which keeps the sheets intact maintains the sheets united during the process of forming the bottom.

25 With the proposed system one achieves a better distribution of the glue and with less spattering that consequently leads to greater glue consumption, with quicker drying time and, therefore, and, consequently, a greater consumption of the glue and a greater speed of drying which means an increase in production.

30 BACKGROUND OF THE INVENTION

The paper bags or sacks composed of various sheets or layers are formed ~~starting~~ from rolls of paper, and or sometimes from plastic materials, in two principal stages: a first

stage of formation of a tubular surface open at its outer walls extremes and a second stage of formation of the bottoms, therefore, the said sack or bag.

5 For this, in the first place In the first stage, points of glue are applied which are situated on the edges of the sheets. This glueing gluing is necessary to keep the sheets together, constituting the maintain the sheets united which constitute the bag or sack, during the operations of folding
10 and glueing gluing of the bottoms.

After, glueing The gluing is applied on the longitudinal edges of the sheets in order to make create a closed tubular surface.

15 In the second phase, Finally, the formation of the bottoms of the bags is made and they are is obtained by means of the folding and glueing gluing of the clearly defined flaps on the extremes outside of the tubular surface previously obtained.
20

25 For the glueing In gluing of the bottoms of the bags, first fold the edges of the tube to define the flaps, of which one flap has glue applied. a folding of the edges of the tube obtained previously is produced, to define some flaps, on one of which the corresponding glue is applied. After, a new fold is done. Next, fold again on the flaps in such a way that they remain superimposed and stuck to each other. It is usual to apply a glued strip of paper on the flaps, already stuck a strip of paper, which is also glued, and which acts as a strengthener.
30

In order to produce the folds necessary for the shaping of the bottom, suction pads are used to lift up which lift up

the extremes of the tube, resulting in the separate sheets to be joined together by the glue. of the indispensable that the distinct sheets which constitute the bag are united among themselves by means of the points of glueing gluing. These 5 points of glueing gluing are the ones mentioned initially, at first, since as the process of the shaping of the bags is applied initially.

Well then, for the glueing gluing of the bottoms Transfer 10 transfer rollers are used, which to conducts the adhesive to a roller applicator which has on its surface a plate or special band of rubber or a similar rough surface, containing with small cells in which the glue is deposited and which is transferred to the flaps of the paper sheets for their 15 closure, shaping this way the bottoms of the bags.

When large quantities of the flaps for the bags are tried to be glued, you have to increase the speed of rotation of the roller applicator but, due to the morphology of the surface of the plate, may lose some of the glue due to the increase in speed. of some of the glue comes off the surface as a consequence of that increase in speed.

In order for the gluing points to keep the sheets of paper 25 together, Also, for the obtaining of the glueing gluing points which keep the sheets of paper united, the glueing gluing machines have roller applicators with which have some ruler guides to correctly set the glue points to apply the glue on which are set some glue points which apply the glue 30 in the front and back openings of the different layers and sheets.

The glueing gluing points are of rubber, plastic or metal and generally present a circular, elliptical or rectangular configuration.

5 These glueing gluing points can either form part of the ruler guide or constitute independent pieces which are connected to the ruler guides by a support equipped with a lower shaft which is threaded around the said power strip and an upper shaft which is threaded around the glue point.

10

Well then, The the configurations described above present an the inconvenience that when the glue accumulates on the walls of the glue point and the untransferred glue ~~not transferred~~ comes off, during the turning of the roller, producing 15 unwanted spattering. On other ~~occasions~~, occasions, the glue dries around the glueing gluing points, gradually increasing the transfer surface, producing an unnecessary expense and increasing the humidity in the bag.

20 **DESCRIPTION OF THE INVENTION**

The system of the glueing gluing objective of the invention, resolves the problem mentioned ~~of~~ for the bottoms of the bags, in that it refers to the flaps and the ~~strengthening~~ 25 strengthening strips on the bottoms, as well as the the glue between the different sheets of each bag which allows ~~permits~~ ~~to maintain them united during~~ the anchoring or shaping of the bottoms.

30 The plate for the glueing gluing of the flaps of the paper bags or sacks which constitutes the objective of the invention is of plastic or a similar material and shows a special embossment on its surface which allows it to resolve

current problems. permits it to resolve satisfactorily the current problems.

5 Specifically, the embossment of the surface of the plate is formed by a series of parallel rows which conform to a series of crests, among which are defined as the corresponding valleys or grooves, in a way that the glue is distributed impregnated only on the crests, avoiding its removal coming off at high speeds from the rotation of the roller. The rows 10 of crests are ~~found~~ arranged with a longitudinal orientation in the direction of the rotation of the roller applicator.

15 In this way, the glue is applied forming a series of parallel lines, whose distance comes determined by the separation among the crests and which can vary according to the type of glue used and the required necessities. The cleaner the glue the greater its grip in dampness, and the better results that are obtained.

20 This morphology permits a better distribution and saving of glue and with much less spattering, because the drying is faster ~~by which the drying is produced faster~~ and therefore productivity can be increased and ~~reduce~~ the time of delivery of the bags obtained can be reduced.

25 The crests can present different configurations, ~~like such as~~ triangular profiles, corrugated, square, and slender. Special configurations have also been planned, ~~like~~ for example, parallel rows of pairs of truncated conical protuberances 30 which allow less glue to be used. ~~permit to reduce even more of the glue used.~~ Moreover, this configuration permits to ~~retain~~ the glue on the plate to remain at the machine stops, in such a way that upon restarting the motion, the glueing

gluing is produced on the bottoms without interruptions or on areas lacking in glue.

5 As soon as the glue is placed between the sheets that constitute the bag, some ~~glueing~~ gluing points are used whose design facilitates the impregnation of the glue and its application in the shaping of the bags avoiding the accumulation of the same.

10 Specifically, when the ~~glueing~~ gluing point is metallic, an essentially triangular configuration is anticipated, and the ~~glueing~~ gluing point ~~remaining~~ remains arranged on the corresponding interlinear spaces oriented in such a way that one of the vertices of the triangle might remain facing the 15 direction of the glue.

20 In accordance with the objective of the invention, the ~~glueing~~ gluing point can be with a canal or a longitudinal groove going through the central part to improve the evacuation of the glue.

25 When the ~~glueing~~ gluing points are of rubber or plastic, a configuration in the circular sector is anticipated, and the vertex ~~remaining~~ remains facing in the direction of the glue. This circular sector can also incorporate a central groove similar to the one described previously.

30 The ~~glueing~~ gluing points of rubber or plastic can also present a configuration of a circular segment, of reduced thickness, which remains facing the glue through its curved edge which presents less resistance.

DESCRIPTION OF THE DRAWINGS

To complement the description that is being done and with the objective of helping creating a better understanding of the characteristics of the invention, in accordance with the practical example of the preferred embodiment of the same, a set of drawings is included and represented as follows: ~~precomes as an integral part of the said description wherein with illustrative and non limiting character, represents the following:~~

10 Figure 1. - Shows some of the stages of the shaping of a sack or bag of with multiple sheets.

15 Figure 2. - Shows a series of sections, corresponding to diverse configurations of the surface of the plate for the glueing gluing of the bottoms of the bags.

Figure 3. - Shows a perspective of a plate composed of two ~~pairs of~~ rows of truncated conical protuberances.

20 Figure 4. - Shows a plan view of a power ruler guide in which ~~are arranges~~ the glueing gluing points of the multiple sheets are arranged which constitutes the bag; some glueing gluing points of triangular configuration having been represented.

25 Figure 5. - Shows a perspective view of a possible geometric configuration of the glueing gluing points of the multiple sheets which make up the bag, and specifically, a glueing gluing point of triangular configuration.

30 Figure 6. - Shows a perspective view of a possible geometric configuration of the glueing gluing points of the multiple sheets which make up the bag, and specifically, of a glueing gluing point in a circular sector.

Figure 7. - Shows a perspective view of a possible geometric configuration of the ~~glueing~~ gluing points of the multiple sheets which make up the bag and, specifically, of a ~~glueing~~ gluing point of a circular sector of reduced thickness.

5

PREFERRED EMBODIMENT OF THE INVENTION

In figure 1 a bag of multiple sheets is represented in distinctive phases of its shaping and, especially, the
10 following:

- a. - A sheet of paper (1), after the glue is applied on its ~~extreme~~ outer edges. On this sheet is placed another sheet of paper, ~~maintaining~~ keeping both ~~united~~ together by means of
15 said points of glue (2), in order to permit the posterior
~~glueing~~ gluing of the bottoms. This glue is applied by means
of the ~~glueing~~ gluing points (3) See Figure 4 which are the
objective of the invention.
- b. - A bag (4), once applied a line of glue longitudinally
20 on both sheets, getting an open tubular configuration by
their outer wall extremes.
- c. - A bag (4), once configured one of the flaps (5) of the
bottom and the corresponding glue applied (6) on the same.
This glue is applied by means of a plate (7), an objective of
25 the invention.
- d. - A bag (4), once the two flaps (5) (5') are glued together
between themselves, constituting the bottom, and on which is
going to be glued a reinforcement strip (13) on which a layer
of glue is applied (6') by means of the plate (7), an
30 objective of the invention.

The ~~glueing~~ gluing points (3), represented in ~~the phase of~~
~~the figure + 4~~ permit the ~~glueing~~ gluing of the multiple
sheets (1) that constitute the bag (4) to each other and,

just like it is represented in figure 4, they are ~~the types of those that~~ are mounted on a ruler guide (8) which at the same time are arranged on a roller applicator; the ~~glueing~~ gluing points (3) being able to be mounted on the ruler guide (8) in an interchangeable way, by means of the corresponding threaded support.

The ~~glueing~~ gluing points (3) objective of the invention can present different configurations depending on the material used. ~~they are constituted of.~~ This way, For example, just like it is represented in figure 5, the metallic ~~glueing~~ gluing points present a geometry essentially triangular and which ~~go are~~ are arranged on the ruler guide (8) in such a way that one of its vertices remains facing the direction of the glue, as can be observed in figure 5.

The ~~glueing~~ gluing points of rubber or plastic are constituted in the form of a circular sector (3) with its vertex facing in the direction of the glue, as represented in figure 6.

It has also been anticipated that the ~~glueing~~ gluing points of rubber or plastic might present a geometry in semi- ~~circular segment of reduced thickness (3'')~~; the semi- ~~circular segment remaining in vertical position on the ruler guide (8) by means of its rectangular base.~~ and in a way ~~which might attack the glue with its less longer side,~~ of The semi-circular segment remains in vertical position on the ruler guide by standing on the rectangular base. The rectangular base having a approximately 2 mm. This ~~glueing~~ gluing point (3'') is represented in figure 7.

Also, and with the objective of facilitating the evacuation of the spare glue, it is anticipated that the ~~glueing~~ gluing

points (3'), (3''), (3''') present a longitudinal groove (5), ~~just like it can be observed such as~~ in figures 5, 6 and 7.

5 In the figures 2 and 3, the corresponding longitudinal sections to diverse configurations of the plate used for the ~~glueing gluing~~ of the bottoms are represented ~~in, represented~~ in the phases c and d of the figure 1.

10 The plate (7) objective of the invention consists of a piece of plastic material or something similar which comprises a series of parallel rows (10) which define respective crests and valleys or grooves, so that the adhesive impregnates only the crests and the application of glue on the flap (5) and reinforcement strip (13) is produced forming parallel lines 15 (6). In this way, a saving of glue is obtained which entails a greater speed of drying and an increase in production. The parallel rows (10) are arranged in the direction of the rotation of the ~~glueing gluing~~ roller.

20 With this type of plate, the glue is distributed only on the crests, avoiding its coming off or spattering at high speeds from rotation of the roller, guaranteeing ~~in this way~~ a uniform application of the adhesive on the flap.

25 The parallel rows can present diverse configurations, just as can be observed in the figure 2, in which are represented rows with a triangular, undulating or square longitudinal section.

30 In the figure 3 another embodiment of the plate (7) is represented which comprises a series of rows (11), composed of pairs of truncated conical protuberances (12) which further reduce even more the consumption of glue and moreover

retains the glue in the plate (7) when the machine is stopped.